

What is claimed is:

1. A construction machine having an engine, a hydraulic pump driven by the engine, and an actuator driven by discharge oil from the hydraulic pump, wherein the construction machine is constructed in such a way that a regenerative motor which rotates by return oil from the actuator is connected to a rotation shaft of the hydraulic pump, and the hydraulic pump is driven by the engine and the regenerative motor when drive torque necessary in the hydraulic pump is larger than output torque generated by operation of the regenerative motor, while the hydraulic pump is driven by the regenerative motor when the drive torque necessary in the hydraulic pump is smaller than output torque generated by operation of the regenerative motor, and an electrical power generator connected to the rotation shaft of the regenerative motor is operated to generate electricity by excess torque which has not been energy-regenerated in the hydraulic pump so that this generated electrical power is stored in an electricity storage device.

2. The construction machine according to claim 1, wherein the construction machine is constructed in such a way that the electrical power generator is functioned as an electric motor to perform motor operation so as to assist driving of the hydraulic pump.

3. The construction machine according to claim 1 or 2, wherein the construction machine is constructed in such a way

that respective rotation shaft of the electrical power generator and rotation shaft of the regenerative motor are provided separately from the rotation shaft of the hydraulic pump, and the respective electrical power generator, hydraulic pump, and regenerative motor can be operated together via interlock means.

4. The construction machine according to any one of claims 1 to 3, wherein clutches for transmitting/disconnecting shaft torques to/from the rotation shaft of the hydraulic pump are provided on at least either one of the rotation shaft of the electrical power generator or the rotation shaft of the regenerative motor.

5. The construction machine according to any one of claims 1 to 4, wherein a continuously variable transmission for changing the rotational speed of the electrical power generator with respect to the rotational speed of the regenerative motor is disposed between the electrical power generator and the regenerative motor.